

Properties (dry)		Value	Units	Method
Viscosity	VN at 0.5% in formic acid, nominal	180	mL/g	ISO 307
	VN at 0.5% in sulfuric acid, nominal	190	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	3.2	---	---
	RV in formic acid, nominal	80	---	ASTM D789
Physical	Density	1.14	g/cm ³	ISO 1183
	Mold Shrinkage, 2.0 mm, Parallel	1.4	%	ISO 294-4
	Mold Shrinkage, 2.0 mm, Transverse	1.5	%	ISO 294-4
	Water Absorption - 24 hours	1.8	%	ISO 62
	Water Absorption - Equilibrium @ 50% RH	2.7	%	ISO 62
Mechanical	Tensile Strength at Yield	84	MPa	ISO 527
	Elongation at Yield	4.4	%	ISO 527
	Elongation at Break	45	%	ISO 527
	Tensile Modulus	2900	MPa	ISO 527
	Flexural Modulus	2950	MPa	ISO 178
	Flexural Strength	101	MPa	ISO 178
	Notched Charpy at 23°C	6.6	kJ/m ²	ISO 179
	Notched Charpy at -30°C	5.7	kJ/m ²	ISO 179
	Unnotched Charpy at 23°C	NB	kJ/m ²	ISO 179
	Unnotched Charpy at -30°C	NB	kJ/m ²	ISO 179
	Notched Izod at 23°C	5.0	kJ/m ²	ISO 180
Thermal	Melting Temperature, 10°C/min	261	°C	ISO 11357
	HDT at 0.45 MPa	187	°C	ISO 75
	HDT at 1.80 MPa	64	°C	ISO 75
Electrical	Volume Resistivity, 2.0 mm	10 ¹⁰	ohm-cm	UL 746A
	Dielectric Strength, 1.0 mm	10.2	kV/mm	UL 746A
	Comparative Tracking Index, 3.0 mm	≥600	volts	UL 746A
Flammability	Flammability Classification at 0.40 mm	V-2	---	UL 94
	Flammability Classification at 0.71 mm	V-2	---	UL 94
	Flammability Classification at 1.5 mm	V-2	---	UL 94
	Flammability Classification at 3.0 mm	V-2	---	UL 94

Product Description

INVISTA HV80A is a medium viscosity PA66 resin for extrusion, injection molding, and compounding applications. It is non-lubricated and has excellent whiteness.

General Information
Material Status

Commercial: Active

Availability

North America, South America, Europe, Asia

Features

High viscosity, excellent whiteness and processability, fast and consistent crystallization

RoHS

No intentional additives or ingredients used in HV80A are among those in the European directive 2011/65/EC (RoHS), as amended.

Process Guidelines for Molding

Drying Temperature	90 °C
Drying Time*	3 - 4 hours
Barrel Temperatures	
Rear	250 - 280 °C
Middle	275 - 290 °C
Front	275 - 290 °C
Nozzle	275 - 295 °C
Processing Temperature (melt)	280 - 295 °C
Mold Temperature	50 - 90 °C
Back Pressure**	2 - 10 bar
Vent Depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested Moisture (max)	0.10 wt%
Suggested Moisture (min)	0.04 wt%
Screw Speed	75 - 180 rpm

* Initial moisture below 0.15 wt%. Use dehumidified air.

** Melt pressure

INVISTA Nylon Polymer

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